EM 404 (s) Special Topics (1-16 credits) 
Credit arranged

EM 502 (s) Directed Study (1-16 credits) 
Credit arranged

EM 504 (s) Special Topics (1-16 credits) 
Credit arranged

EM 510 Engineering Management Fundamentals (3 credits) 
Fundamental principles of engineering management addressing 
management theory applied to the engineering environment; 
management processes and techniques; attitudes that facilitate 
the leadership role of the engineering manager in an engineering 
organization. 
Prereqs: Instructor permission

EM 513 Leading Technical Organizations (3 credits) 
One of the four Engineering Management functions is leading: leading 
yourself, leading others, and leading technical organizations. This course 
provides background in leadership frameworks, concepts, and methods 
needed to succeed in leading an engineering or technical organization. 
Typically Offered: Fall.

EM 550 Process Improvement Methods (3 credits) 
This course will examine a framework for delivering dramatic and 
sustained continuous improvement results through the integration of 
 improvement methodologies such as Lean Six Sigma and Design for Lean 
Six Sigma (DFLSS).

EM 560 Project Risk Management (3 credits) 
Application of project risk assessment tools and techniques that help 
increase the probability of project success. Discover different approaches 
used by commercial and federal agencies to identify, assess, and quantify 
risks and their impacts on projects. 
Prereqs: Instructor Permission

EM 570 Global Product Development (3 credits) 
Discussion of topics related to enabling effective global product 
development spanning the entire product development cycle from 
strategy development, through project execution, and ultimately post 
release product support. Rather than presenting a fixed methodology 
this course will provide a framework for global development that can be 
adapted to specific environments.

EM 580 Technical Project Management (3 credits) 
Traditional project management approaches are typically structured 
around the five PMBOK (Project Management Book of Knowledge) 
process groups. This course will introduce the PMBOK process groups 
but then discuss five different project management life cycle (PMLC) 
models to manage a project. The topics discussed are appropriate for 
new project managers but also for experienced project managers who are 
looking to increase their awareness and improve their skills in differing 
PMLC models.

EM 582 Advanced Topics in Project Management (3 credits) 
Discussion and application of advanced project management topics 
beyond those prescribed by traditional project management approaches. 
Example topics include project portfolio management, multi-project 
management, use of Theory of Constraints (TOC) and Critical Chain 
approaches to drive improved results, and application of Agile practices. 
These approaches should be applicable to a wide variety of industries 
and functions. 
Prereqs: EM 580 or Instructor Permission

EM 596 Capstone Integration (1 credit) 
Capstone integration of degree material in Engineering Management and 
comprehensive final exam. 
Prereqs: Permission

EM 599 (s) Non-thesis Master’s Research (1-16 credits) 
Credit arranged. Research not directly related to a thesis or dissertation. 
Prereqs: Permission